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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,201	01/30/2004	Steven Michael Miller	RSW920030226US1	6041
36736	7590	02/21/2008	EXAMINER	
DUKE W. YEE			PARK, JEONG S	
YEE & ASSOCIATES, P.C.				
P.O. BOX 802333			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/768,201	Applicant(s) MILLER ET AL.	
	Examiner Jeong S. Park	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-34 are objected to because of the following informalities:

In claim 1, line 8, the phrase "to service the client request" should be corrected as --to serve the client request-- for clear understanding of the claim. Similar correction should be made for claims 8, 11, 13, 20, 23, 25, 32 and 35;

In claim 1, line 13, the phrase "the Web service candidate business policy" should be corrected as --a Web service candidate business policy-- for clear understanding of the claim. Similar correction should be made for claims 13 and 25; and

In claim 8, lines 6 and 9, the phrase "the policy" should be corrected as --the business policy-- for clear understanding of the claim. Similar correction should be made for claims 11, 20, 23, 32 and 35.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 25-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 25 is drawn towards a computer program product in a computer readable medium including computer program code. The computer readable medium defined in

the specification is not in one of the statutory categories. The specification provides no explicit and deliberate definition of the computer readable medium.

Claims 26-34, which are dependent on claim 25 do not add any explicit and deliberate definition of the computer readable medium to the claim and thus are rejected for the same.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larkin et al. (hereinafter Larkin)(U.S. Pub. No. 2004/0064428 A1), and further in view of Moore et al. (hereinafter Moore)(U.S. Pub. No. 2004/0122926 A1).

Regarding claims 1, 13 and 25, Larkin teaches as follows:

A method for dynamically selecting functionally equivalent Web services through a single autonomic proxy (equivalent to aggregation and review engine 110 in figure 1, see, e.g., page 2, paragraph [0028])(a method and system for collecting and reviewing data related to web services receives service criteria from a service requester, selects candidate services that match the service criteria, invokes the selected candidate services, and aggregates results provided by the candidate services, see, e.g., abstract) comprising:

receiving a client request (service requester 108 in figure 1) to locate a Web

service at the autonomic proxy (aggregation and review engine 110 in figure 1, hereinafter engine)(see, e.g., page 2, paragraph [0029], lines 1-2);

querying a policy discovery mechanism (equivalent to service registries or UDDI 130 in figure 1, see, e.g., page 2, paragraph [0031] and [0032]) based on the client request (see, e.g., page 2, paragraph [0029], lines 3-8); and

locating multiple Web services candidates (equivalent to one or more service providers 160 in figure 1) to service the client request, wherein each Web service candidate is functionally equivalent to the other Web service candidates (invocation of services from one or more service providers, see, e.g., page 2, paragraph [0029], lines 3-8).

Larkin teaches all limitations of claim except for determining a web service candidate based on the Web service candidate business policy.

Moore teaches as follows;

A system and method for automating the selection of a web service based on reputation information (interpreted as applicant's business policy)(see, e.g., page 1, paragraph [0008]); and

the client provides contract requirements and reputation requirements, such as with the query. The search engine crawls the contract data to determine which web services meet the basic operational requirements of the client, and crawls the reputation data to determine which of those contract-meeting web services have the best reputations (see, e.g., page 1, paragraph [0009]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Larkin to include determining a web service based on reputation information as taught by Moore in order to effectively select a web service among multiple available Web services corresponding to the client's exact requirements.

Regarding claims 2, 14 and 26, Larkin teaches as follows:

The policy discovery mechanism is UDDI (equivalent to service registries or UDDI 130 in figure 1, see, e.g., page 2, paragraph [0031] and [0032]).

Regarding claims 3, 15 and 27, Larkin teaches as follows:

The Web service is described using WSDL (equivalent to service definition or WSDL source 140 in figure 1)(the service definition contains detailed information of web service, see, e.g., page 3, paragraph [0033] and [0034]).

Regarding claims 4, 16 and 28, Larkin teaches as follows:

Querying the policy discovery mechanism (registries, UDDI 130 in figure 1) includes obtaining a WSDL Web service interface description (service definition) for the requested Web service (the candidate selection module 170 provides the directory queries to conduct searches within the registries (UDDI 130) and provide a service list 172 to the dispatch module 180 and the service list comprises service definition object which defines the interface to the service providers, see, e.g., page 3, paragraph [0036]).

Regarding claims 5, 17 and 29, Larkin teaches as follows:

Querying the policy discovery mechanism includes locating a wsdlSpec tModel (defined in the applicant's specification page 16 line 28 to page 17, line 2 as the

technical specifications required to interact with the Web service endpoint in based on the WSDL Web service interface description for the requested Web service)(the service definition 140 in figure 1 contains detailed information necessary to exchange information electronically between a service requestor and a service provider, see, e.g., page 3, paragraph [0033]. The service registries 130 contain service descriptions that describe the functionality of available Web services along with general information such as web service names, locations, and service types, see, e.g., e.g., page 3, paragraph [0031]).

Regarding claims 6, 7, 18, 19, 30 and 31, Larkin teaches all the limitations of claim as explained above per claim 1 except for determining based on the business criteria of the Web service candidate.

Moore teaches as follows:

A system and method for automating the selection of a web service based on reputation information (interpreted as applicant's business policy) comprises a technically-oriented and business-oriented behavioral attributes (see, e.g., page 1, paragraph [0008], lines 1-6);

the business-oriented behavioral attributes (equivalent to applicant's business criteria) includes cost data (see, e.g., page 1, paragraph [0008], lines 9-16); and

the client provides contract requirements and reputation requirements, such as with the query. The search engine crawls the contract data to determine which web services meet the basic operational requirements of the client, and crawls the reputation

data to determine which of those contract-meeting web services have the best reputations (see, e.g., page 1, paragraph [0009]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Larkin to include determining a web service based on reputation information specified with cost data as taught by Moore in order to effectively select a web service among multiple available Web services corresponding to the client's exact requirements.

Regarding claims 8, 20 and 32, Larkin teaches as follows:

Selecting candidate services (step 220 in figure 2) and invoking (equivalent to sending a message) candidate services (step 230 in figure 2)(see, e.g., page 3, paragraphs [0042] and [0043] respectively).

Moore teaches as follows:

A system and method for automating the selection of a web service based on reputation information (interpreted as applicant's business policy)(see, e.g., page 1, paragraph [0008]); and

selecting a Web service (selected resource 306 in figure 3) from a group of Web service candidates (list of corresponding resources 304 in figure 3)(selection mechanism 302 in figure 3 selects a resource from a list and narrow the list to a selected resource based on reputation data 308, see, e.g., page 4, paragraph [0034]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Larkin to include determining a web service among multiple

available Web services based on reputation information as taught by Moore in order to effectively select a web service corresponding to the client's exact requirements.

It would have been also obvious for one of ordinary skill in the art at the time of the invention to modify Larkin and Moore to include looping process among multiple Web service candidates in order to select a Web service provider which is actually available in real-time when the decision made based on the reputation information.

Regarding claims 9-11, 21-23 and 33-35, Larkin teaches as follows:

Receiving and validating service criteria (equivalent to applicant's metadata) received from the service requester (see, e.g., page 3, paragraph [0041]).

Moore teaches as follows:

A system and method for automating the selection of a web service based on reputation information (interpreted as applicant's business policy) comprises a technically-oriented and business-oriented behavioral attributes (see, e.g., page 1, paragraph [0008], lines 1-6); and

the technically-oriented behavioral attributes includes web service responsiveness, web service latency and web service uptime (see, e.g., page 1, paragraph [0008], lines 6-9).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Larkin to include response time information as the service requester's criteria as taught by Moore in order to effectively select a web service corresponding to the client's response time related requirement.

Regarding claims 12, 24 and 36, Moore teaches as follows:

A system and method for automating the selection of a web service based on reputation information (interpreted as applicant's business policy) comprises a technically-oriented and business-oriented behavioral attributes (see, e.g., page 1, paragraph [0008]).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Moore to include the well-known Web Service Policy Framework as the reputation information.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeong S. Park whose telephone number is 571-270-1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/768,201
Art Unit: 2154

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NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JP

February 7, 2008